IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

TITLE: **POCKET FLASHLIGHT APPARATUS**

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POCKET FLASHLIGHT APPARATUS

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to a pocket flashlight apparatus, and more particularly to an articulated flashlight apparatus including a light emitting member and a base member such as a multi-function tool which provides a stable base and allows the light emitting member to assume multiple positions.

Description of the Prior Art

The prior art includes a wide variety of utility flashlights, including light weight, pocket size devices found in the commercial and camping markets. The most notable of the pocket size devices is the MAGLITE™ line of flashlights. These devices typically include a light bulb, batteries and a housing to contain them, as do most conventional flashlights.

The prior art also includes a number of multi-functional tools that combine different tool heads into a common handle. The tool heads fold or pivot into the handle; and they can unfold or pivot out of the handle (either separately or collectively). The most notable of these devices is the SWISS ARMY™ line of products.

It is desirable for a pocket size flashlight to include support structure for placing the flashlight in different positions and allowing hands-free operation of the flashlight. It is also desirable for a pocket size multifunction tool to include a flashlight as one of its components.

Finally, it is desirable that these tools and flashlights have a compact and a light weight construction.

The pocket flashlight apparatus of the present invention provides a pocket size, multi-function tool with a flashlight component. It provides a stable base that allows an operator to place the flashlight component in a number of positions without holding it there with his or her hands. This construction is simple and compact; it is light weight and easy to manufacture and operate.

SUMMARY OF THE INVENTION

In accordance with this invention, a flashlight apparatus includes a base member, a light emitting member, and a support member. The base, light-emitting, and support members lie pivotally connected to one another. In one embodiment, the base member includes a pocket size multi-function tool disposed in end-to-end relation with the light emitting member; and the support member of this embodiment includes at least one leg portion pivotally mounted to the tool.

BRIEF DESCRIPTION OF THE DRAWINGS

For a more complete understanding of this invention, one should now refer to the embodiments illustrated in greater detail in the accompanying drawings and described below as examples of the invention. In the drawings:

Figure 1 is a perspective view of the pocket flashlight apparatus of the present invention;

Figure 1A is a partially sectional and partially elevational view of the pocket flashlight apparatus shown in Fig. 1;

Figure 2 is another perspective view of the apparatus shown in Fig. 1 with base and support members configured to form a base for the light-emitting member;

Figure 3 is a perspective view of the flashlight apparatus of the present invention, showing a modified base member;

Figure 4 is a perspective view of the flashlight apparatus of the present invention, showing a second modified base member;

Figure 5 is a perspective view of the flashlight apparatus of the present invention, showing a third modified base member;

Figure 6 is a perspective view of the flashlight apparatus of the present invention, showing a fourth modified base member in an open configuration; and

Figure 7 is a perspective view of the flashlight apparatus of Fig. 6, showing the apparatus in a closed configuration.

While the following disclosure describes the invention in connection with one embodiment and a number of modifications, one should understand that the invention is not limited to this embodiment. Furthermore, one should understand that the drawings are not to scale and that graphic symbols, diagrammatic representations, and fragmentary views, in part, may illustrate the embodiment. In certain instances, the disclosure may not include details which are not necessary for an understanding of the present invention.

DETAILED DESCRIPTION OF THE DRAWINGS

Turning now to the drawings and referring specifically to Figs. 1 and 2, the pocket flashlight apparatus of the present invention shown at 10 generally includes a base member 11, a light-emitting member 12, and a support member 13. The base member 11 comprises a pocket size, multi-functional tool with a housing 14 and tool segments 15-17, including a knife 15, a bottle opener 16 and a file 17. The tool segments 15-17 are made of steel or other suitable material 17. One may interchangeably use many other available tools (e.g., scissors, screw drivers, etc.) and tool assemblies within and outside of the housing 14.

The housing 14 is made out of aluminum or any other material of high strength and rigidity. It functions as a housing for the tool segments 15-17, a handle for the apparatus 10, and a portion of a base for the light-emitting member 12. It includes generally parallel portions 18, 19, 20 and 21 that define an elongate center space 22 for containing the tool segments 15-17 which lie pivotally secured by a pin 23 to the housing 14 at one end of the housing. The portions 18-21 also define outer spaces 24 and 25 for containing the leg portions 26 and 27 of the support member 13.

The support member 13 lies pivotally connected to the housing 14 by a pin 28 which extends through the housing 14 at an end opposite the end with the pin 23. This support member 13 is made of wire or any other suitable material; and it includes the leg portions 26 and 27 and a coil-like mid portion 29. This mid portion winds around the pin 28 and includes a finger 29a which serves as a stop to engage the housing 14 and prevent rotation beyond the position shown in Fig. 2. In this position, the support member co-operates with the base member 11 to form a stable base for the light emitting member or flashlight 12.

The flashlight 12 includes a round housing 30 pivotally connected to the base member 11 with a linkage 31, including a U-shaped portion 32, a pin 33, arm segments 34 and 35 and the pin 28. The housing 30 is a barrel-like structure made out of aluminum or any other suitable material; and it contains power generating means (*e.g.*, single or multiple power sources, including regular and rechargeable batteries, an AA battery B, or one or more replacement batteries), a light emitting device such as a bulb E (or multiple lighting sources including incandescent, LED or high intensity bulbs such as Xenon bulbs), a reflector R, and a Lens L. (With some light emitting alternatives, one does not need a reflector or a lens.)

Figs. 3 to 7 show a number of modifications of the base member 11 and the support member 13. Fig. 3 shows a pair of support member 113 pivotally connected to the housing 14 at the pin 28 location. Fig. 4 shows three support member 213 pivotally connected to the housing 14 at the pin 23 location, while Fig. 5 shows a similar arrangement but with one support member 313 lying pivotally connected to the housing 14 at the pin 23 location and the other two support members 313a and 313b being pivotally connected to the distal end of the member 313. Finally, Figs. 6 and 7 show an arrangement similar to that of Fig. 5 but with a support member 413 that has a channel-like configuration and support members 413a and 413b having a somewhat curved configuration and providing a spring function.

While the above description and the drawings disclose and illustrate one embodiment and a number of modifications of that embodiment, one should understand, of course, that the invention is not limited to this embodiment. Those skilled in the art to which the invention pertains may make other modifications and other embodiments employing the principles of this

invention, particularly upon considering the foregoing teachings. Therefore, by the appended claims, the applicant intends to cover any modifications and other embodiments that incorporate those features which constitute the essential features of this invention.